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TITLE OF THE INVENTION

4"-KETO-AND 4"-AMINO-4"-DEOXY AVERMECTIN  
COMPOUNDS AND SUBSTITUTED AMINO DERIVATIVES THEREOF

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5 ABSTRACT OF THE DISCLOSURE

There are disclosed novel avermectin  
41 compounds wherein the 4" hydroxy group is oxidized to  
a keto group or replaced with an amino or substituted  
amino group. The keto compounds are prepared by  
10 oxidation with reagents such as oxalyl chloride in  
dimethylsulfoxide. The amino compounds are prepared  
from the ketone using a reducing agent and an  
aminating agent. Substituted amino compounds are  
prepared from the thus produced unsubstituted amino  
15 compounds. The keto compounds and amino compounds  
have utility as anti-parasitic agents and  
compositions for that use are also disclosed. The  
compounds are also highly potent insecticides against  
agricultural pests. In addition the amino compounds  
20 have anti-bacterial activity which is not found in  
any of the precursors.